

PATENT

In Re Application of: )  
Steven R. HETZLER et al. ) Group Art Unit: TBA  
Serial No.: TBA )  
Filed: July 14, 2003 ) Examiner: TBA  
For: RAID 3 + 3 ) Atty Dkt No. ARC920030040US1  
)

## **INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. § 1.56 and in compliance with 37 C.F.R. § 1.97(b), Applicants submit herewith a Form PTO-1449 listing patents and publications for consideration in connection with the above-identified application. A copy of each patent and publication is provided herewith.

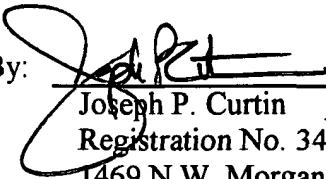
Applicants respectfully request that the Examiner consider and enter these documents into the file of the above-identified application. If any additional fee is deemed necessary, the Commissioner is authorized to charge Deposit Account No. 09-0441.

Applicants also wish to draw the Examiner's attention to the following related Patent Applications that are each co-pending, co-assigned and filed concurrently herewith: Patent Application Serial No. (Attorney Docket No. ARC9-2003-0014-US1), entitled "Anamorphic Codes", Patent Application Serial No. (Attorney Docket No. ARC9-2003-0015-US1), entitled "Autonomic Parity Exchange," and Patent Application Serial No. (Attorney Docket No. ARC9-2003-0016-US1), entitled "Multi-path Data Retrieval From Redundant Array". Additionally, Applicants wish to bring the Examiner's attention to related co-pending Patent Application Serial No. (Attorney Docket No. YOR9-2003-0069-US1).

A general authorization under 37 C.F.R. § 1.25(b), second sentence, is hereby given to credit or debit Deposit Account No. 09-0441 for the instant filing and for any other fees during the pendency of this application under 37 C.F.R. §§ 1.16, 1.17 and 1.18.

Respectfully submitted,

Dated: July 14, 2003

By: 

Joseph P. Curtin

Registration No. 34,571

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|  |   |    |   | Application Number       | TBA                |
|  |   |    |   | Filing Date              | July 14, 2003      |
|  |   |    |   | First Named Inventor     | Steven R. HETZLER  |
|  |   |    |   | Art Unit                 | TBA                |
|  |   |    |   | Examiner Name            | TBA                |
| Sheet  | 4 | of | 4 | Attorney Docket Number   | ARC9-2003-0016-US1 |

| <b>NON PATENT LITERATURE DOCUMENTS</b> |                       |   |  |  |
|--|-----------------------|---|--|--|
| Examiner Initials*                     | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |  |  |
|  | 31                    | M. Blaum et al., "MDS Array Codes with Independent Parity Symbols," IEEE Trans. on Information Theory, Vol. IT-42, pp. 529-542, March 1996.   |  |  |
|  | 32                    | M. Blaum et al., "The EVENODD Code and its Generalization," High Performance Mass Storage and Parallel I/O: Technologies and Applications, edited by H. Jin et al., IEEE & Wiley Press, New York, Chapter 14, pp. 187-208, 2001.                                |  |  |
|  | 33                    | M. Blaum et al., "EVENODD: An Efficient Scheme For Tolerating Double Disk Failures In A RAID Architecture," IEEE Trans. on Computers, Vol. 44, No. 2, pp. 192-202, Feb. 1995.   |  |  |
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1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.  
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| Sheet                        | 3 | of | 4 | Attorney Docket Number   | ARC9-2003-0016-US1 |

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| Examiner Initials*                     | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |  |  |
|  | 21                    | G.A. ALVAREZ et al., Tolerating Multiple Failures in RAID Architectures with Optimal Storage and Uniform Declustering, Computer Architecture News (USA), V. 25, #2, pp. 62-72, May 1972.  |  |  |
|  | 22                    | V. BOHOSSIAN et al., Computing in the RAIN: A Reliable Array of Independent Nodes, pp. 1-20, September 24, 1999.  |  |  |
|  | 23                    | P.M. CHEN et al., RAID: High-Performance, Reliable Secondary Storage, ACM Computing Surveys, Vol. 26, No. 2, pp. 146-185, June 1994.  |  |  |
|  | 24                    | M. HOLLAND et al., Parity Declustering for Continuous Operation in Redundant Disk Arrays, ACM 0-89791-535-6/92/0010/0023, pp. 23-35, October 1992.  |  |  |
| 5                                      | 25                    | N.K. OUCHI, Two-Level DASD Failure Recovery Method, IBM Technical Disclosure Bulletin, Vol. 36, No. 03, pp. 187-190, March 1993.  |  |  |
|  | 26                    | D.A. Patterson et al., A Case for Redundant Arrays of Inexpensive Disks (RAID), ACM 0-89791-268-3/88/0006/0109 1998.  |  |  |
| 7                                      | 27                    | J.S. PLANK, A Tutorial on Reed-Solomon Coding for Fault-Tolerance in RAID-like Systems, pp. 1-19, February 19, 1999.  |  |  |
|  | 28                    | E.J. SCHWABE et al., Evaluating Approximately Balanced Parity-Declustered Data Layouts for Disk Arrays, ACM 0-89791-813-4/96/05, pp. 41-54, 1996.   |  |  |
|  | 29                    | E.J. SCHWABE et al., Flexible Usage of Parity Storage Space in Disk Arrays, ACM 0-89791-809-6/96/06, pp. 99-108, 1996.  |  |  |
|  | 30                    | L. Xu et al., X-Code: MDS Array Codes with Optimal Encoding, IEEE Trans. On Information Theory, Vol. 45, No. 1, pp. 272-276, January 1999.  |  |  |

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Sheet 2 of 4

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| Examiner Name          | TBA                |
| Attorney Docket Number | ARC9-2003-0016-US1 |

## U. S. PATENT DOCUMENTS

## **FOREIGN PATENT DOCUMENTS**

| Examiner<br>Signature   |  | Date<br>Considered |
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(Use as many sheets as necessary)

Sheet

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of

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|                      |                   |
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| First Named Inventor | Steven R. HETZLER |
| Art Unit             | TBA               |
| Examiner Name        | TBA               |

Attorney Docket Number ARC9-2003-0016-US1

| U. S. PATENT DOCUMENTS |                       |   |                                |  |   |
|------------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials*     | Cite No. <sup>1</sup> | Document Number                                   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                        |                       | Number-Kind Code <sup>2</sup> ( <i>if known</i> ) |                                |  |   |
| 1                      | US-                   | 5,134,619   | 07-28-1992                     | Henson et al.                                      |   |
| 2                      | US-                   | 5,148,432   | 09-15-1992                     | Gordon et al.                                      |   |
| 3                      | US-                   | 5,257,391   | 10-26-1993                     | DuLac et al.                                       |   |
| 4                      | US-                   | 5,301,297   | 04-05-1994                     | Menon et al.                                       |   |
| 5                      | US-                   | 5,398,253   | 03-14-1995                     | Gordon   |   |
| 6                      | US-                   | 5,506,977   | 04-09-1996                     | Jones  |   |
| 7                      | US-                   | 5,579,475   | 11-26-1996                     | Blaum et al.                                       |   |
| 8                      | US-                   | 5,835,938   | 11-10-1998                     | Yamamoto et al.                                    |   |
| 9                      | US-                   | 5,848,229   | 12-08-1998                     | Morita   |   |
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| 14                     | US-                   | 6,161,165   | 12-12-2000                     | Solomon et al.                                     |   |
| 15                     | US-                   | 6,269,453 B1                                      | 07-31-2001                     | Krantz   |   |
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| 18                     | US-                   | 6,353,895 B1                                      | 03-05-2002                     | Stephenson   |   |
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| FOREIGN PATENT DOCUMENTS |                       |  |                                |  |   |
|--------------------------|-----------------------|--|--------------------------------|--|---|
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|                          |                       | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> ( <i>if known</i> ) |                                |  | T <sup>6</sup>  |
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